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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,998	09/18/2003	Takahiro Matsumoto	1232-5156	4610
27123	7590	01/06/2006	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			ALANKO, ANITA KAREN	
			ART UNIT	PAPER NUMBER
			1765	

DATE MAILED: 01/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/664,998

Applicant(s)

MATSUMOTO ET AL.

Examiner

Anita K. Alanko

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/25/05 election.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 9-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/17/04;8/1/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

Applicant's election with traverse of Group I in the reply filed on 10/25/05 is acknowledged. The traversal is on the ground(s) that undue diverse searching should not be required and that all claims should be examined together. This is not found persuasive because the groups are classified in different classes and are restricted for the reasons of record.

The requirement is still deemed proper and is therefore made FINAL.

***Specification***

The disclosure is objected to because of the following informalities: page 17, line 11 describes a length of 20 microns, whereas Figure 3 is marked 12 microns, either the specification or the drawings should be changed to be consistent with each other.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 9-10, the term "a plurality of lines" is unclear. A line of what? Do these lines refer to a single alignment mark?

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Claims 2-8 fail to cure the indefiniteness of their base claim, and are therefore also rejected.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Magome et al (US 5,754,300).

Magome discloses a position detection method comprising:

an image information acquisition step of obtaining image information (from detector 9) of the position detection marks (Fig.4a, Fig.4b) from the light that has been received;

a conversion step of converting the image information to a light-intensity signal (Fig.8a) for each line of a plurality of lines partitioned in a direction substantially orthogonal to a direction in which the position detections marks are detected (using A/D converter 31);

a determination step of determining whether the light-intensity signal of each line is valid or not (since the signal is not valid, it is clipped, Fig.8C); and

a position information calculation step of calculating position information of the position detection marks from light-intensity signals of valid lines (see abstract).

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Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Irie et al (US 5,808,910).

Irie discloses a position detection method comprising:

- an image information acquisition step of obtaining image information (Fig.2) of the position detection marks “alignment mark” from the light IL that has been received;
- a conversion step of converting the image information to a light-intensity signal SS for each line of a plurality of lines partitioned in a direction substantially orthogonal to a direction in which the position detections marks are detected (using photodetecting device 35);
- a determination step of determining whether the light-intensity signal of each line is valid or not (determining whether the peculiar shot should be included or not, col.3, lines 50-65); and
- a position information calculation step of calculating position information of the position detection marks from light-intensity signals of valid lines (col.3, lines 64-65).

As to claims 7-8, Irie discloses to use the global alignment technique 62 (col.11, lines 3+).

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishi (US 4,962,318).

Nishi discloses a position detection method comprising:

- an image information acquisition step of obtaining image information (Fig.1A) of the position detection marks “alignment mark” from the light IL,20 that has been received;
- a conversion step of converting the image information to a light-intensity signal for each line of a plurality of lines partitioned in a direction substantially orthogonal to a direction in

which the position detections marks are detected (photoelectric signals, col.6, lines 36-37; FIA operational unit 35);

a determination step of determining whether the light-intensity signal of each line is valid or not (slicing, Fig.7); and

a position information calculation step of calculating position information of the position detection marks from light-intensity signals of valid lines (using global alignment, col.13, lines 4+).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art shows methods of detecting positions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K. Alanko whose telephone number is 571-272-1458. The examiner can normally be reached on Mon-Fri until 2:30 pm (Wed until 11:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1765

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Anita K. Alanko*

Anita K Alanko  
Primary Examiner  
Art Unit 1765